

## Technology: Optoelectronics

### Civcom launches 10 Gb/s tunable transponder

Civcom of Petah-Tivka, Israel has launched the Free-Light Compact (3.34" x 2.87" x 0.53") high-performance, long-reach 10 Gb/s tunable transponder for DWDM.

Compliant with the 300-pin multi-source agreement (MSA) specifications, it contains both a 10 Gb/s widely tunable transmitter and a wide-band receiver, providing flexibility and support for both the C-band and the L-band.

The device has two configurations: a standard tunable transponder; a tunable transponder integrated with tunable optical dispersion compensator for extended range. Civcom also supplies Atlas, an automated test and evaluation platform for universal (fixed, narrow and widely tunable) 300-pin MSA transponders.

[www.civcom.com](http://www.civcom.com)

### Lumics raises €5.5m

Lumics GmbH of Berlin, Germany, which manufactures 800–1080 nm laser modules, has closed a €5.5m (\$6.6m) round of funding. A consortium of investors (Falk Straszeg Holding GmbH, eCAPITAL Technologies Fonds II GmbH & Co. KG, MAZ Seed Invest GmbH and VC Fonds Berlin GmbH) joined first-round investor Earlybird. Lumics aims to increase production capacity, further develop its laser technology, and expand its sales activities and international market base.

Lumics product range includes laser diodes and fibre-coupled devices for optical communication networks, analytical instruments and industrial laser applications.

[www.lumics.com](http://www.lumics.com)

## First commercial 10 Gb/s XFP-type transceiver for DWDM is launched

Japan's Fujitsu Ltd and Fujitsu Laboratories Ltd have jointly developed what they claim is the world's first commercial 10 Gbit small-form-factor pluggable (XFP)-type optical transceiver for dense wavelength division multiplexing (DWDM). Samples were exhibited at January's annual Fiber Optics Expo in Tokyo.

The finger-sized (78.0 mm x 18.4 mm x 8.5 mm) transceiver will make it possible to develop and manufacture smaller, less costly, high-speed DWDM optical transmission equipment.

XFP is the smallest type of optical transceiver within the 10 Gb/s multi-source agreement (MSA) optical module industry standard. It is notable for having pluggable optical and electrical interfaces.

To commercialize an XFP optical transceiver with DWDM specifications, Fujitsu says that it has developed three key innovations: an original, compact transceiver circuit; a low-power-consuming optical device and a high-efficiency heat dissipation

mechanism; and high-frequency/high-density mounting technology.

However, the transceiver has the same optical transmission equipment interface as conventional XFP transceivers, and can be plugged directly into existing optical equipment.

Fujitsu says it will offer a line of 10-Gb/s transceivers with transmission ranges of 2-80 km, which will be available from the end of March.

[www.fujitsu.com](http://www.fujitsu.com)

## DWDM SFP pluggable transceivers

Finisar Corp of Sunnyvale, CA, USA, which makes fibre-optic component and subsystem and network test and monitoring systems, has launched its DWDM small-form-factor pluggable (SFP) transceivers.

Finisar says the transceivers enable system vendors to simultaneously accelerate time-to-market and provide an easy-to-use DWDM interface by offering a pluggable alternative to traditional discrete

solutions. The products are suited for metropolitan access network and core network systems.

Finisar's transceivers are compatible with the latest DWDM SFP multi-source agreement (MSA), of which Finisar is a founding member. The company claims that the transceivers offer the lowest power consumption in the industry (with a maximum specification of 1 W total power) and enable backwards

compatibility in legacy systems designed for standard SFP transceivers. The DWDM SFPs are also fully RoHS compliant and lead-free.

The FWLF-1631 transceiver is compliant with SONET/SDH specifications from OC-3/STM-1 to OC-48/STM-16, 1/2 Gb/s Fibre Channel, and Gigabit Ethernet. It can be deployed in data links with spans of up to 120 km.

[www.finisar.com](http://www.finisar.com)

## First 4 Gb/s 1310 nm VCSEL SFP transceivers

Picolight Inc of Louisville, CO, USA claims to be the first company to ship 1310 nm VCSEL transceivers in a 4 Gb/s triple-rate (1, 2 and 4 Gb/s) small-form-factor pluggable (SFP) configuration, which is "one of the fastest growing segments of the data center market".

With extended reach capability and low power consumption, Picolight says the transceivers satisfy a broad range of short-to-medium distance applications, including 4 Gb/s Fibre Channel at 10 km for storage area networks (SANs). The company says that, similar to 850nm VCSEL transceivers, 1310nm VCSEL transceivers have the potential

to dominate short-to-medium distance single-mode fiber applications, displacing existing edge emitting laser transceivers in high-bandwidth and high-density optical systems.

Picolight's VCSEL-based 1310 nm transceivers use the widely deployed 850 nm transceiver architecture. With a single transceiver architecture addressing multiple specifications at 4 km and 10 km and reaching up to 40km, Picolight says that it offers a complete portfolio to meet Fibre Channel needs.

The transceivers feature an uncooled 1310 nm oxide-confined, high-speed VCSEL

coupled to an LC optical connector, extended temperature and voltage range options, internal AC coupling on both transmit and receive data signals, and an all-metal housing for increased shielding from electromagnetic interference (EMI).

Picolight says that it has ensured reliability through the use of process and design controls, validated with a comprehensive set of reliability tests. The company also plans to extend its 1310 nm VCSEL product line from 4 Gb/s Fibre Channel applications to 10 Gigabit Ethernet at 10 km or more over single-mode fibre.

[www.picolight.com](http://www.picolight.com)